

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A vacuum extraction unit for a device used to structure the surface of a workpiece (20), in particular a printing form, such as for example a flexographic printing block, by means of radiation, in particular laser radiation, with radiation, comprising:

- a hood (10), ~~which in its operating position covers having an operating position covering~~ a region of interaction between the radiation and the workpiece surface, with the hood comprising:

-- a rear side (11), ~~to side to which~~ a vacuum extraction line (13) can be connected,

-- a vacuum channel, the vacuum channel comprising:

-- an inlet opening;

-- two side walls (16), ~~which have end edges (19) which lie walls, each side wall extending from the rear side and having an end edge lying~~ opposite the workpiece in the operating position of the hood, hood, and

-- two directing walls (17, 18), ~~which are located between the side walls (16), extend transversely in relation to the latter and which together with the two side walls (16) delimit in the hood (10) a vacuum extraction channel (14) with an inlet opening (15), which lies opposite the workpiece in the operating position of the hood, extending transversely between the side walls, an edge (21) of one (17) of the two of a first directing walls wall lying~~ opposite the workpiece (20) in the operating position of the hood (10), while the other directing wall (18) has a convex, cylindrical curvature lying opposite the workpiece surface in the operating position of the hood and, in the region of ~~this curvature, hood, a second directing wall being curved; and~~

at least one opening in the second directing wall (23), through which the radiation for processing the workpiece surface is guided.

2. (Currently Amended) The vacuum extraction unit as claimed in claim 1, ~~characterized in that wherein~~ the end edges (19) of the two side walls (16) have a contour which is adapted to the contour of the surface of a workpiece (20) to be processed, so that corresponding gap seals are formed when the end edges (19) lie opposite the workpiece (20) in the operating position of the hood, hood (10).

3. (Currently Amended) The vacuum extraction unit as claimed in claim 1, ~~characterized in that wherein~~ the curvature of the curved directing wall (18) is curved in the form of an arc of a circle.

4. (Currently Amended) The vacuum extraction unit as claimed in claim 3, ~~characterized in that wherein~~ the curving of the curvature of the curved directing wall (18) is greater than the curving of the surface of the ~~workpiece (20)~~ workpiece.

5. (Currently Amended) The vacuum extraction unit as claimed in claim 1, ~~characterized in that wherein~~ the curvature of the curved directing wall (18) is exponentially curved.

6. (Currently Amended) The vacuum extraction unit as claimed in claim 1, ~~characterized in that wherein~~ the opening or openings (23) through which the radiation for processing the workpiece (20) is guided is provided in the region of the curved directing wall (18) that lies closest to the surface of the workpiece (20) in the operating position of the hood (10) hood.

7. (Currently Amended) The vacuum extraction unit as claimed in claim 2, ~~characterized in that wherein~~ the contour of the end edges (19) of the side walls (16) is a polyline adapted to the contour of the workpiece surface.

8. (Currently Amended) The vacuum extraction unit as claimed in claim 2, ~~characterized in that wherein~~ the contour of the end edges (19) of the side walls (16) is an arc of a circle adapted to the contour of the workpiece surface.

9. (Currently Amended) The vacuum extraction unit as claimed in claim 2, ~~characterized in that wherein~~ the distance between the end edges (19) of the side walls (16) and the workpiece surface in the operating position of the hood (10) is less than 50 mm, preferably less than 30 mm, in particular less than 10 mm but greater than 0.5 mm, and with particular preference between 1 mm and 5 mm is less than 50 mm.

10. (Currently Amended) The vacuum extraction unit as claimed in claim 2, ~~characterized in that wherein~~ the width of the gap seals formed between the end edges (19) of the side walls (16) and the workpiece surface lies in the range between 0.1 mm and 30 mm.

11. (Currently Amended) The vacuum extraction unit as claimed in claim 2, ~~characterized in that the hood (10) wherein the hood~~ is exchangeably fastened to a working laser head (30); head.

12. (Currently Amended) The vacuum extraction unit as claimed in claim 2, ~~characterized in that the side walls (16) wherein the side walls~~ of the hood are provided with ~~means, in particular movable lamellae or exchangeable side parts, means~~ by which the contour of the edges of the side walls (16) that lie opposite a workpiece (20) can be changed in order to adapt them to the surface of the ~~workpiece (20); workpiece~~.

13. (Currently Amended) The vacuum extraction unit as claimed in claim 1, ~~characterized in that wherein~~, in the region of the curved directing wall (18) that lies closest to the surface of the workpiece (20) in the operating position of the ~~hood (10); hood~~, each working jet or beam delivered by a processing head, in particular each working laser beam (24) delivered by a working laser head (30); head, is provided with an opening (23) of its own, through which the radiation for processing the workpiece (20) is focused on the latter.

14. (Withdrawn -Currently Amended) The vacuum extraction unit as claimed in claim 1, ~~characterized in that wherein~~ a C-shaped cover ring (40) which has two ends that follow the circumference of the workpiece and are located at a distance from each other and which has a substantially U-shaped cross section is provided, the hood (10) being arranged adjacent one of the two circumferential ends of the cover ~~ring (40); ring~~.

15. (Withdrawn -Currently Amended) The vacuum extraction unit as claimed in claim 14, ~~characterized in that wherein~~ the C-shaped cover ring (40) is exchangeable.

16. (Withdrawn -Currently Amended) The vacuum extraction unit as claimed in claim 14, ~~characterized in that wherein~~ the side walls (41) of the C-shaped cover ring (40) are provided with means for reducing its free inside diameter, so that said ring can be set to correspond to the diameter of the cylindrical workpiece (20) respectively to be processed.

17. (Withdrawn -Currently Amended) The vacuum extraction unit as claimed in claim 16, ~~characterized in that wherein~~ the means for reducing the free inside diameter of the C-shaped cover ring comprise a lamellar seal (48) scal.

18. (Withdrawn -Currently Amended) The vacuum extraction unit as claimed in claim 17, ~~characterized in that wherein~~ the individual lamellae (49) of the lamellar seal (48) are pivotably fastened to the side walls (41) of the cover ring (40).

19. (Withdrawn -Currently Amended) The vacuum extraction unit as claimed in claim 16, ~~characterized in that wherein~~ the means for reducing the free inside diameter of the C-shaped cover ring comprise exchangeable side parts, in particular side plates.

20. (Withdrawn -Currently Amended) The vacuum extraction unit as claimed in claim 14, ~~characterized in that wherein~~ the C-shaped cover ring (40) is circumferentially subdivided into at least two ring segments, which are pivotably held against each other.

21. (Withdrawn -Currently Amended) The vacuum extraction unit as claimed in claim 20, ~~characterized in that wherein~~ the C-shaped cover ring a(40) is circumferentially subdivided into three ring segments of different circumferential lengths, the circumferential length of an upper ring segment corresponding approximately to half the circumferential length of the cover ring (40) ring, while the lower ring portion has two shorter ring segments.

22. (Withdrawn -Currently Amended) The vacuum extraction unit as claimed in claim 14, ~~characterized in that wherein~~ a vacuum extraction nozzle (47) is arranged in an intermediate

space between the hood (10) and a circumferential end of the C-shaped cover ring (40) that is located upstream of the ~~hood (10)~~ hood.

23. (Currently Amended) The vacuum extraction unit as claimed in claim 2, ~~characterized in that wherein~~ the curvature of the curved directing wall (18) is curved in the form of an arc of a circle.

24. (Currently Amended) The vacuum extraction unit as claimed in claim 2, ~~characterized in that wherein~~ the curvature of the curved directing wall (18) is exponentially curved.

25. (Currently Amended) The vacuum extraction unit as claimed in claim 24, ~~characterized in that wherein~~ the curving of the curvature of the curved directing wall (18) is greater than the curving of the surface of the ~~workpiece (20)~~ workpiece.

26. (Currently Amended) The vacuum extraction unit as claimed in claim 7, ~~characterized in that wherein~~ the distance between the end edges (19) of the side walls (16) and the workpiece surface in the operating position of the hood (10) is less than 50 mm, preferably less than 30 mm, in particular less than 10 mm but greater than 0.5 mm, and with particular preference between 1 mm and 5 mm; hood is less than 50 mm.

27. (Currently Amended) The vacuum extraction unit as claimed in claim 8, ~~characterized in that wherein~~ the distance between the end edges (19) of the side walls (16) and the workpiece surface in the operating position of the hood (10) is less than 50 mm, preferably less than 30 mm, in particular less than 10 mm but greater than 0.5 mm, and with particular preference between 1 mm and 5 mm; is less than 50 mm.